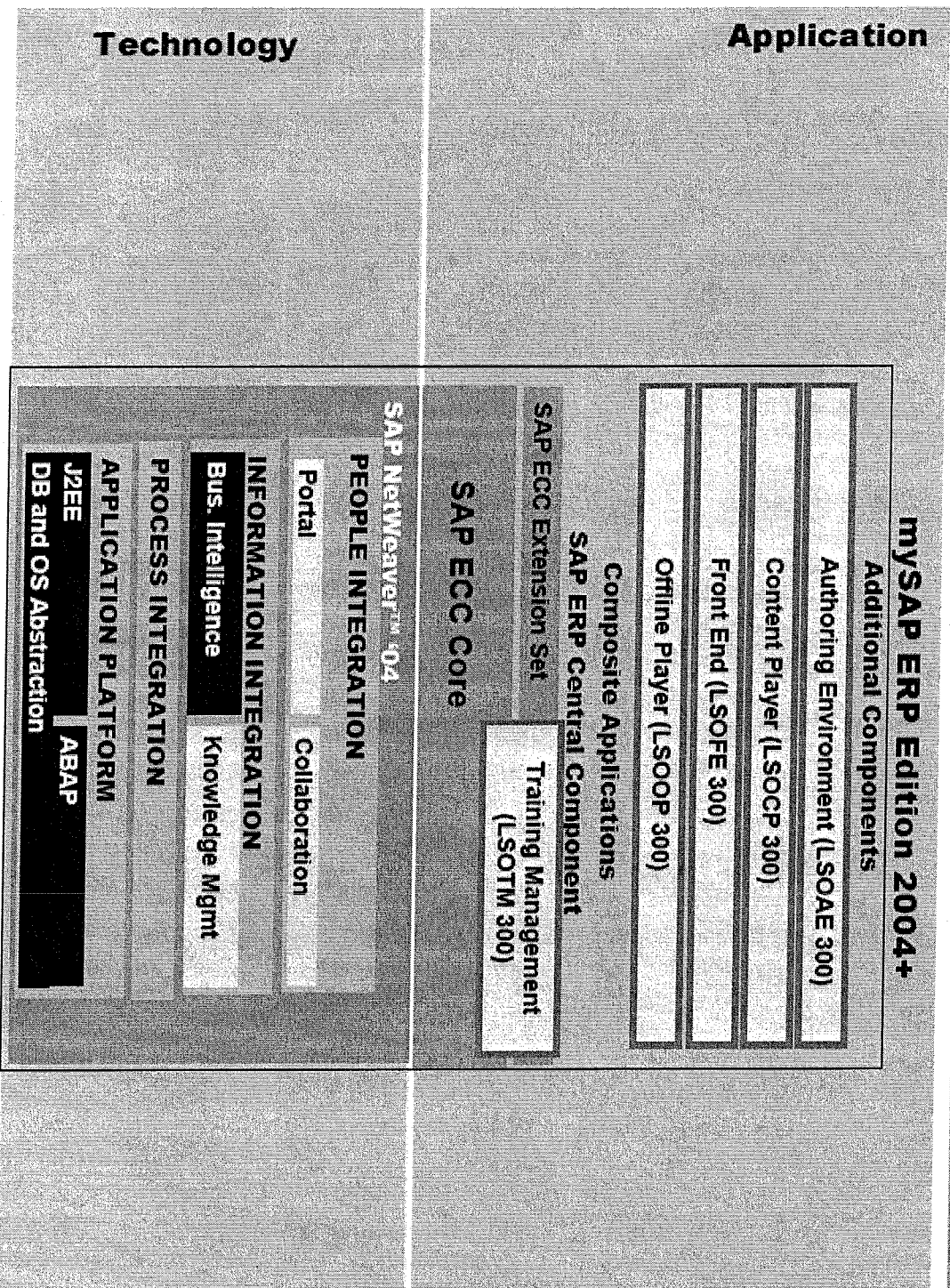
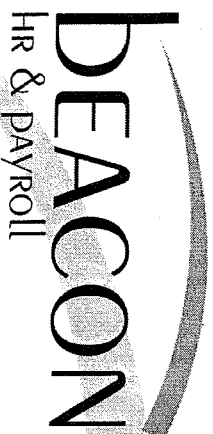




## ERP 2005: Learning Solution





## ERP 2005: Learning Solution – Input Parameters

**How many concurrent users are taking a course?**

**U = Number of users per hour**

Note: This is not the number of courses which are requested per hour. If, for example, the duration for executing a course will take half an hour, the number of concurrent users is half the number of requested courses per hour

**How active are these users?**

**A = Number of user interaction steps per hour (activity)**

Slow : 30 steps per hour

Medium : 60 steps per hour

Fast: 120 steps per hour

**How large are the courses on average?**

**S = Number of steps (size)**

Small: 20 steps

Medium: 50 steps

Big: 100 steps

## ERP 2005: Learning Solution Sizing

Parameter	Quantity	Comments
Concurrent users taking a course (U)	1000	This is the maximum expected
How active are users? (A)	Fast	120 steps per hour
How large are courses? (S)	Medium	50 Steps

### Assumptions:

1. Concurrent users in an hour is 1000
2. Average user is very active (Fast)
3. Average course size is medium

Total resource consumption of the J2EE server:

1. Number of pages which have to be sent to the clients per hour  

$$U * A * 0.01 \text{ SAPS} = 1000 * 120 * 0.01 = 1200$$
2. For the number of logins  

$$U * A / S * 0.05 \text{ SAPS} = 1000 * 120 / 20 * 0.05 = 120$$
3. For the number of requested "Table of contents"  

$$U * A / 10 * 0.0005 \text{ SAPS} * S = 1000 * 120 / 10 * 0.0005 * 50 = 300$$

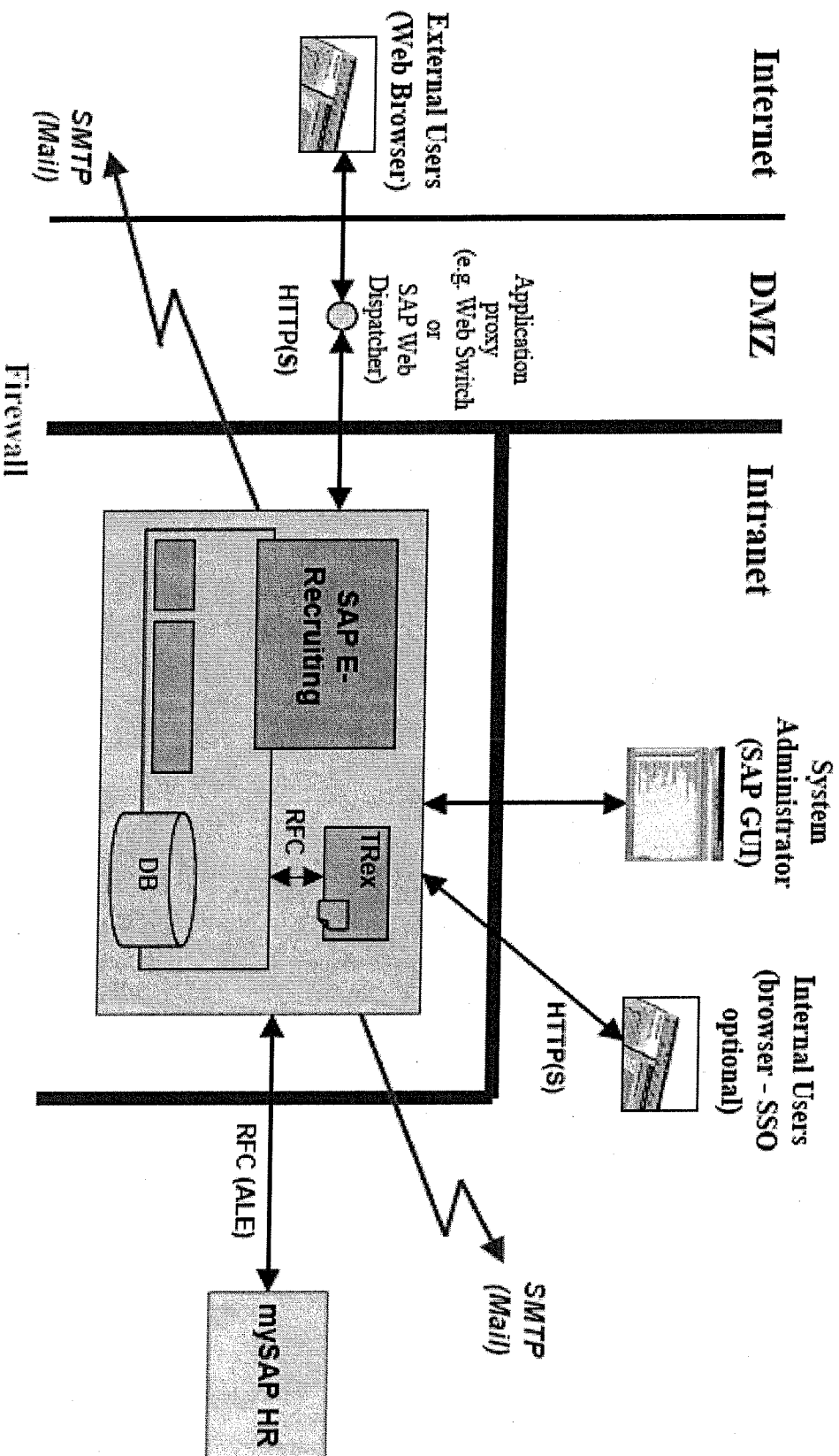
**Total SAPS required = 1200+120+300 = 1620 SAPS**

## ERP 2005: E-Recruitment

### **SAP E-Recruiting is a web based solution for**

- Managing postings with detailed qualification profiles  
The postings are exposed as guided web forms which can be applied by the applicants
- Registering internal and external applicants and maintaining their skills
- Searching and applying for positions  
Applying means filling out the Web forms for the posting including required attachments
- Searching for applicants

## ERP 2005: E-Recruiting - Typical Architecture



## **ERP 2005: E-Recruitment Sizing Scenarios**

The following four scenarios form the basis for the sizing Recruiter

- Who creates a posting out of a posting template with 7 interaction steps and Applicants
- Registers with 18 interaction steps
- Searches for a position with 5 interaction steps
- Applies for a position with 13 interaction steps



## ERP 2005: E-Recruiting Sizing Input Parameters

Use the following questions to obtain the number of users which you can enter in the Quick Sizer:

### 1. Recruiters

What is the number of recruiters that are working with the system and how active are they?

### 2. Registration

Take the peak number of registrations (Nregis) you expect per hour and the number of interaction steps (i.e. number of pages of the registration form)

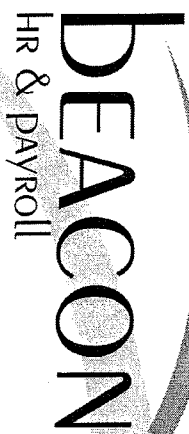
### 3. Search

Take the peak number of searches (Nsearch) and the number of user interaction steps per search (Steps)

### 4. Applications

Take the peak number of applications (Nappl) you expect per hour and the number of interaction steps (i.e. number of pages of the application form)

Note that the number of interaction steps may vary



## ERP 2005: E-Recruiting Sizing

Parameter	Quantity	Comments
Recruiters	40 Low	2*20 small agencies
	280 Medium	70*4 Medium agencies
	30 High	3*10 Large agencies
Registration	1000 / hour	
Search	20,000 / hour	Average 160,000 visitors per hour
Applications	5,000 / hour	





## ERP 2005: E-Recruiting-QS Results with Equivalent HCM-PD Users

	Low	Med	High
<b>Recruiters</b>	40	280	30
Equivalent HCM-PD Users	80	560	60
<b>Applicants</b>			
Registrations/hour	1000	22 steps	
Search/hour	20000	6 steps	
Application/hour	5000	13 steps	
<b>Total N-Steps</b>	207000		
Medium active applicants	1725		
Equivalent HCM-PD users	3450		
<b>Total Equivalent PD users</b>			
HCM-PD Users	80	5175	60

<b>Solution</b>	<b>Release</b>	<b>CPU Cat.</b>	<b>SAPS</b>	<b>Mem(MB)</b>	<b>Disk Cat.</b>	<b>Total MB</b>
ERP	5	XL	13,500	36,352	XL	101,500

## ERP 2005 Sizing Results Summary

ERP 2005 Area	HCM	ESS – ERP Impact	MSS – ERP Impact	ERP 2005- HCM Total	FI	Learning Solution	E-Recruit
SAPS	3300	2200	595	6095	4,100	1620	13,500
Disk Storage	489 GB	.5GB	.5GB	490GB	443 GB	NA	101.5 GB
Memory	35.8 GB	.2GB	.2GB	36.2GB	13.24 GB	NA	36.35 GB

→ Future projects estimates

**Sizing summary for ERP2005 Production environment including the impact of ESS, MSS, Learning solution and E-Recruitment on ERP2005**

# Enterprise Portal 7.0



## Portal 7.0: Agenda

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- Scope & Architecture
- Sizing Factors
- SAP Quick Sizer & Sizing Results

# Scope & Architecture



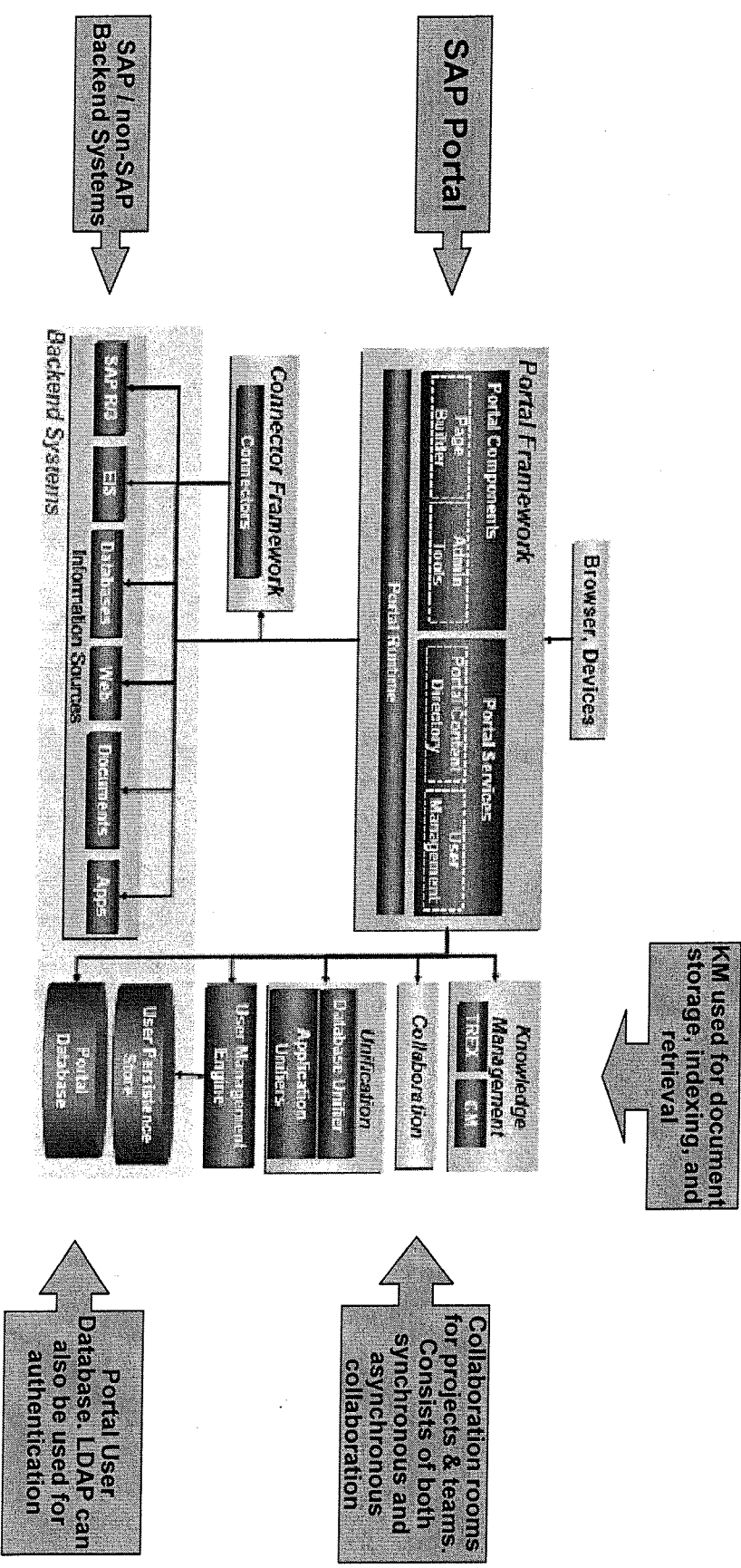
## Portal 7.0: Scope for BEACON

### Portal Scope

- \*1 - ESS/MSS
- \*2 - Central Logon
- \*3 - Content – static
- 4 - Reporting front end to BI
- 5 - Knowledge mgmt / TREX
- 6 - Collaboration
- 7 - Drag & Relate

\*For purposes of this sizing exercise, 1, 2, 3 will be assumed to be the scope of the project.

## Portal 7.0: SAP Portal Components





# Portal Sizing Factors

## Portal 7.0: Important Sizing Factors

- Three important factors

1. Concurrent Users.

- Number of users logged onto the portal at the same time.

2. Total Logins per Hour.

- Each logged on user takes up portal server resources. Logons are measured by how many users log in per hour.

3. Think Time: Time between a users interactions in the portal.

- **Low Intensity:** One transaction every 600 seconds (10 minutes).
- **Medium Intensity:** One transaction every 360 seconds (6 minutes).
- **High Intensity:** One transaction every 30 seconds.
- **Example:** A user, over 10 minutes, submits a form and navigates to a page to view his/her benefits information. This would be 2 transactions over 10 minutes or a think time of 5 minutes or 300 seconds.

## Portal 7.0: Concurrent Users (Normal)

- Normal Workload
  - \* Total Concurrent User: 4594
    - Concurrent ESS Users: 2250
    - Concurrent MSS Users: 688
    - Concurrent WinGUI / WebGUI User: 1313
  - Logins Per Hour: 14375
    - ESS Users per Hour: 3750
    - MSS Users per Hour: 2750
    - WinGUI / WebGUI Users per Hour: 7875

**\* Concurrent User Calculations on the next slide**



## Portal 7.0: Concurrent Users Calculation (Normal)

Concurrent ESS User Calculation		
(A) Total ESS Users	75000	Total Licensed SAP Users
(B) Average Login per Week	2	Once a week for time entry. Once a week for HR info/update.
(C) Average Transactions per Login	6	Time Entry and Other benefits transactions
(D) Average time per Transaction (secs)	360	360 second (6 min) between user transactions. Classified as medium intensity user.
(E) Total User time on system (hours)	90000	Equals (A x B x C x D) / 3600. Divide by 3600 to convert to seconds to hours.
(F) Concurrent ESS Users	2250	Equals E / 40. This divides the users evenly across the work week.
(G) Hour Segments	1.7	Equals 3600 / (C x D). This breaks up users evenly over an hour.
(H) Total Users Logged in per hour	3750	Equals F x G.
Concurrent MSS User Calculation		
(A) Total MSS Users	11000	Estimated licensed SAP managers.
(B) Average login / week	10	Once a day to view reports. Twice per day to update information.
(C) Average transactions per login	5	Viewing report or performing updates.
(D) Average time per transaction (s)	180	180 seconds (3 min.) between user interactions. This classifies the user as Medium - High Intensity User
(E) Total User Time on System (hours)	27500	Equals (A x B x C x D) / 3600. Divide by 3600 to convert to seconds to hours.
(F) Concurrent MSS Users	688	Equals E / 40. Averaged evenly across the week.
(G) Hour Segments	4.0	Equals 3600 / (C x D). This breaks up users evenly over an hour.
(H) Total Users Logged in per hour	2750	Equals F x G
Concurrent WinGUI / WebGUI Users		
(A) Total WinGUI / WebGUI Users	21000	Total Licensed Professional & Limited Professional SAP Users
(B) Average login / week	15	Three times a day for various business transactions
(C) Average transactions per login	1	Once logged into the portal to connect to SAP via WebGUI or WinGUI the communications / transactions are no longer through the portal
(D) Average time per transaction (s)	600	600 seconds (10 min) between user interactions. This classifies the user as low intensity because after login, user will be not be communicating thru the portal.
(E) Total User time on system (hours)	52500	Equals (A x B x C x D) / 3600. Divide by 3600 to convert to seconds to hours.
(F) Concurrent ESS Users	1313	Equals E / 40. Average evenly across the week.
(G) Hour Segments	6.0	Equals 3600 / (C x D). This breaks up users evenly over an hour.
(H) Total Users Logged in / hour	7875	Equals F x G

## Portal 7.0: Concurrent Users (Peak)

- Peak Workload
  - Estimated Total Concurrent User: 14925
    - Estimated Concurrent ESS Users: 11250
    - Estimated Concurrent MSS Users: 1925
    - Estimated Concurrent WinGUI / WebGUI User: 1750
  - Logins Per Hour: 56250 (Estimated ESS Peak.)

**\* Concurrent User Calculations on the next slide**



## Portal 7.0: Concurrent Users Calculation (Peak)

### Peak ESS User Calculation

(A) Total ESS Users	75000 Total Licensed SAP Users
(B) Peak % of Users	75% Estimated percent of the users that will login to enter time at end of week.
(C) Total Peak Users per Hour	56250 Equals A x B.
(D) Average Peak Transactions per Login	2 About 2 transactions to complete time sheet.
(E) Average Peak Time per Transaction (s)	360 360 second (6 min) between user transactions. Classified as medium intensity user.
(F) Peak Hour Segments	5 Equals 3600 / (D x E). Spread completion of timesheets evenly over an hour.
(G) Concurrent Peak ESS Users	11250 Equals C / F.

### Peak MSS User Calculation

(A) Total MSS Users	11000 Estimated licensed SAP managers.
(B) Peak % of Users	70% 70% of managers logging in during the morning to view reports
(C) Total Peak Users per hour	7700 Equals A x B
(D) Average Peak transactions per login	5 Viewing reports and drilling down for more information
(E) Average Peak time per transaction (s)	188 seconds (3 min.) between user interactions. This classifies the user as Medium to High
(F) Peak hour segments	180 intensity.
(G) Peak MSS Users	4 Equals 3600 / (D x E). Way to spread the logins evenly over an hour.
	1925 Equals C / F.

### Peak WinGui Users

(A) Total WinGUI / WebGUI Users	21000 Total Licensed Professional & Limited Professional SAP Users
(B) Peak % of Users	50% Estimated highest % of total users that will login in during the same hour
(C) Total Peak Users	10500 Equals A x B.
(D) Average Peak transactions / login	Once logged into the portal to connect to SAP via WebGUI or WinGUI the communications / transactions are no longer through the portal.
(E) Average Peak time per transaction (s)	600 seconds (10 min) between user interactions. This classifies the user as low intensity
(F) Peak hour segments	600 because after login, user will be not be communicating thru the portal.
(G) Peak WinGUI / WebGUI Users	6 Equals (3600 / (D x E). Way to spread the logins evenly over an hour.
	1750 Equals C / F.

# Portal SAP Quick Sizer & Sizing Results





## Portal 7.0: Definition of Portal Quick Sizer Input Parameters

Parameter	Description
A/P	Average? / Peak?
TI	Time Interval (P-Peak, S-Snapshot, Y-Year, H-Hour)
Concurrent users	Workers who works simultaneously in the system
Think Time	The time between a user's interactions with the portal.
Java Iview / Page	The number of Java iviews per page. More processor/memory intensive than URL iviews because the program is running in the Portal Run Time (PRT)
URL Iview / Page	The number of URL iviews per page. Less processor / memory intensive than Java iviews because the application or content is on another server.
% KMC	% of concurrent requests using Knowledge Management and Collaboration.

## Portal 7.0: Quicksizer Parameter Input (Normal Scenario)

Project: **VENDOR-BEAACON**

Work days: 
 Status: 
 Owner: 
 Method:

### Messages

The data for PORTAL were saved.

SAP NetWeaver -> Enterprise Portal: Change

Table 1: Active Users - Enterprise Portal

Delete/Clear	Insert	Element	AP	TI	Concluser *	Think t *	Java IV	URL IV	% KMC	Short text
<input type="checkbox"/>	<input type="checkbox"/>	NW-EP-ESS	A	S	2.250	360			1	ESS Users
<input type="checkbox"/>	<input type="checkbox"/>	NW-EP-INT	A	S	688	180	2		1	MSS Users
<input type="checkbox"/>	<input type="checkbox"/>	NW-EP-PCG	A	S	1.313	600			1	WMGUL / WebGUI Users
<input type="checkbox"/>	<input type="checkbox"/>	NW-EP-PRT	A	S						

Table 2: Active Users - Enterprise Portal Logon

Clear	Insert	Element	AP	TI	Max. no. of logons	Short text
<input type="checkbox"/>	<input type="checkbox"/>	NW-EP-LOG	A	H	14.375	

## Portal 7.0: Quicksizer Results (Normal Scenario)

Save	Print page	Result level	SAP solution	With charts	Details	Set to final	Documentation	Hardware vendors	Dis
Project VENDOR-BEACON									
Work days	220	Status	In progress	Owner	Customer	Method	All		
<b>Messages</b>									
<p>For results at different aggregation levels, choose another result level.</p> <p>The system automatically saved the data for PORTAL.</p>									
<b>Active Users for mySAP Business Solutions</b>									
Solution	Release	CPU cat.	SAPS (total)	Memory (MB)	Disk cat.	Disk (total, MB)			
PORTAL*	6.0	S	3.000	9.984		0			